



## Impacts of climate change and variability on European agriculture: Results of inventory analysis in COST 734 countries

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### Abstract:

Climate plays a fundamental role in agriculture because of its influence on production. All processes are regulated by specific climatic requirements. Furthermore, European agriculture, based on highly developed farming techniques, is mainly oriented to high quality food production that is more susceptible to meteorological hazards. These hazards can modify environment-genotype interactions, which can affect the quality of production. The COST 734 Action (Impacts of Climate Change and Variability on European Agriculture), launched in 2006, is composed of 28 signature countries and is funded by the European Commission. The main objective of the Action is the evaluation of possible impacts arising from climate change and variability on agriculture and the assessment of critical thresholds for various European areas. The Action will concentrate on four different tasks: agroclimatic indices and simulation models, including review and assessment of tools used to relate climate and agricultural processes; evaluation of the current trends of agroclimatic indices and model outputs, including remote sensing; developing and assessing future regional and local scenarios of agroclimatic conditions; and risk assessment and foreseen impacts on agriculture. The work will be carried out by respective Working Groups. This paper presents the results of the analysis of the first phase of inventory activity. Specific questionnaires were disseminated among COST 734 countries to collect information on climate change analysis, studies, and impact at the European level. The results were discussed with respect to their spatial distribution in Europe and to identify possible common long- and short-term strategies for adaptation.

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### Resource Description

#### Communication:

resource focus on research or methods on how to communicate or frame issues on climate change; surveys of attitudes, knowledge, beliefs about climate change

A focus of content

#### Communication Audience:

audience to whom the resource is directed

Policymaker

# Climate Change and Human Health Literature Portal

## **Early Warning System:**

resource focus on systems used to warn populations of high temperatures, extreme weather, or other elements of climate change to prevent harm to health

A focus of content

## **Exposure :**

weather or climate related pathway by which climate change affects health

Food/Water Security

**Food/Water Security:** Agricultural Productivity

## **Geographic Feature:**

resource focuses on specific type of geography

None or Unspecified

## **Geographic Location:**

resource focuses on specific location

Non-United States

**Non-United States:** Europe

## **Health Impact:**

specification of health effect or disease related to climate change exposure

Health Outcome Unspecified

## **Mitigation/Adaptation:**

mitigation or adaptation strategy is a focus of resource

Adaptation

## **Population of Concern:** A focus of content

## **Population of Concern:**

populations at particular risk or vulnerability to climate change impacts

Low Socioeconomic Status, Workers

## **Resource Type:**

format or standard characteristic of resource

Research Article

## **Timescale:**

time period studied

Time Scale Unspecified

## **Vulnerability/Impact Assessment:**



resource focus on process of identifying, quantifying, and prioritizing vulnerabilities in a system

A focus of content